Name:

at1124exam: Radicals and Squares (v823)

Question 1

Simplify the radical expressions.

$$\sqrt{63} \qquad \sqrt{28} \qquad \sqrt{20}$$

Question 2

Find all solutions to the equation below:

$$2(x+5)^2 + 8 \;=\; 40$$

Question 3

By completing the square, find both solutions to the given equation. *You must show work for full credit!*

$$x^2 + 10x \;=\; -16$$

Question 4

A quadratic polynomial function is shown below in standard form.

$$y \;=\; 5x^2 - 40x + 77$$

Express the function in **vertex form** and identify the **location** of the vertex.